



# Invention Organization

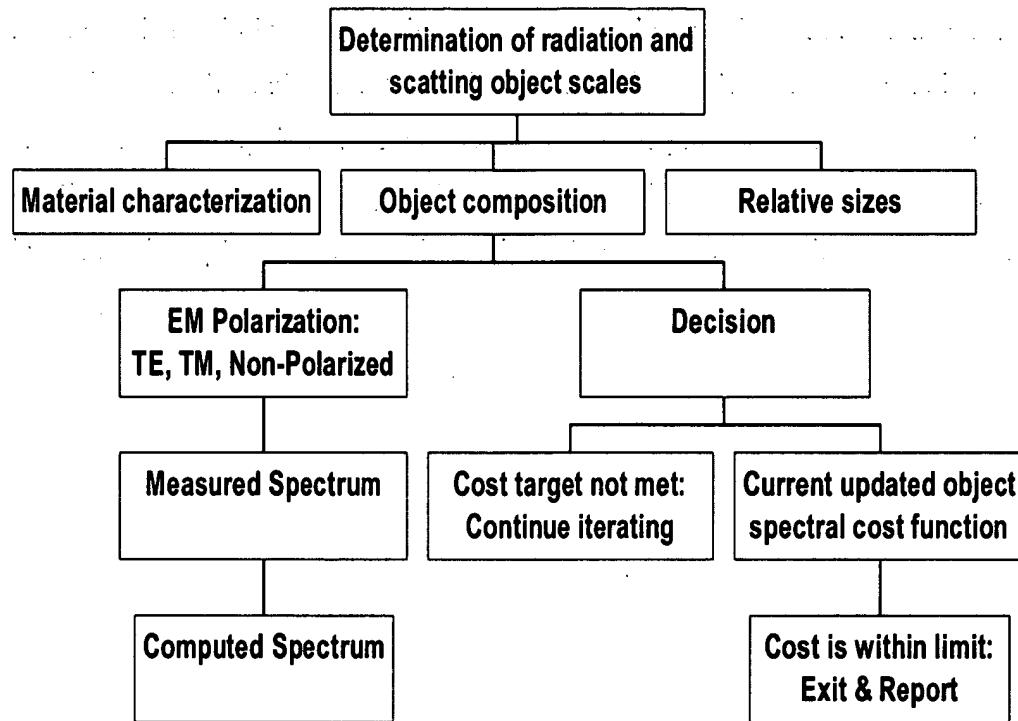


Figure 1: Organizational chart of the invention road map.

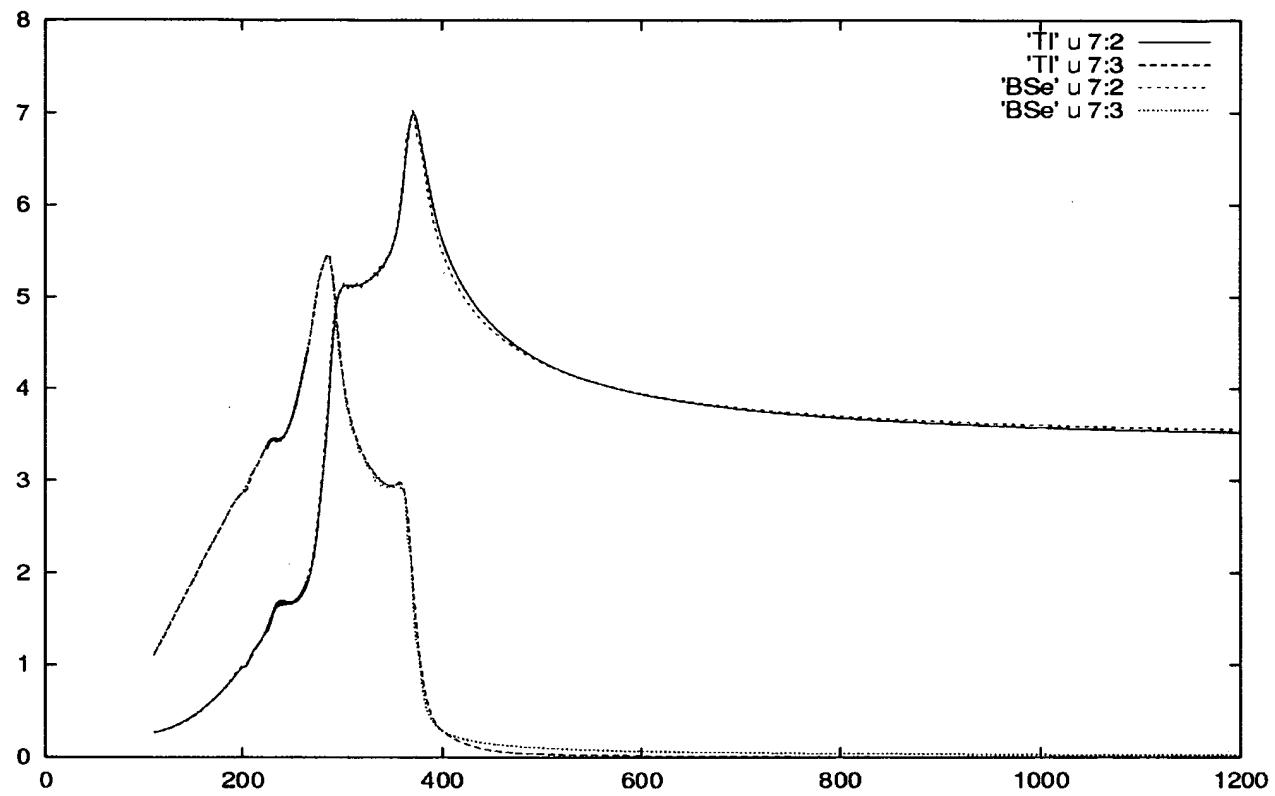


Figure 2: Refractive index  $n$  and absorption coefficient  $k$  as measured and computed by Findpoles. As can be seen the agreement is spectacular over the *entire* range.

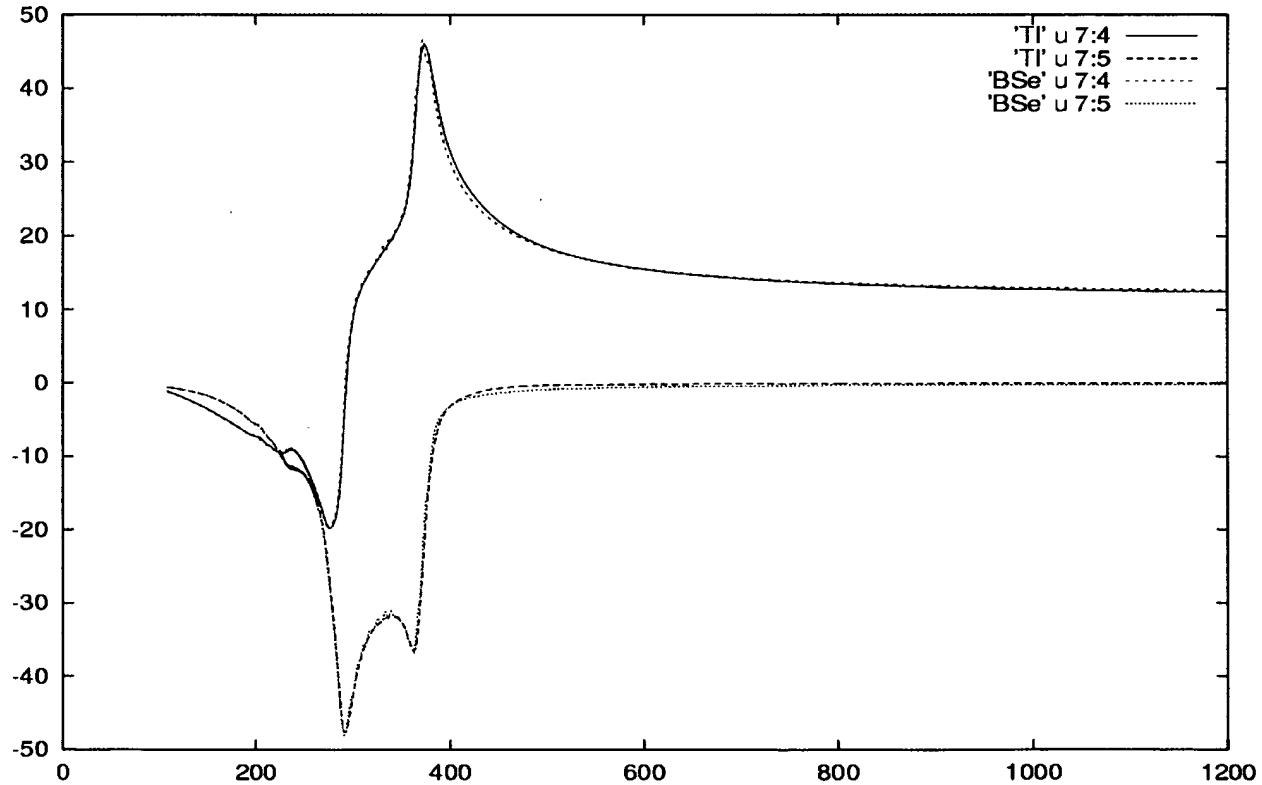


Figure 3: Real and imaginary permittivity of Silicon as measured and computed by Findpoles. As can be seen the agreement is spectacular over the *entire* range of interest.

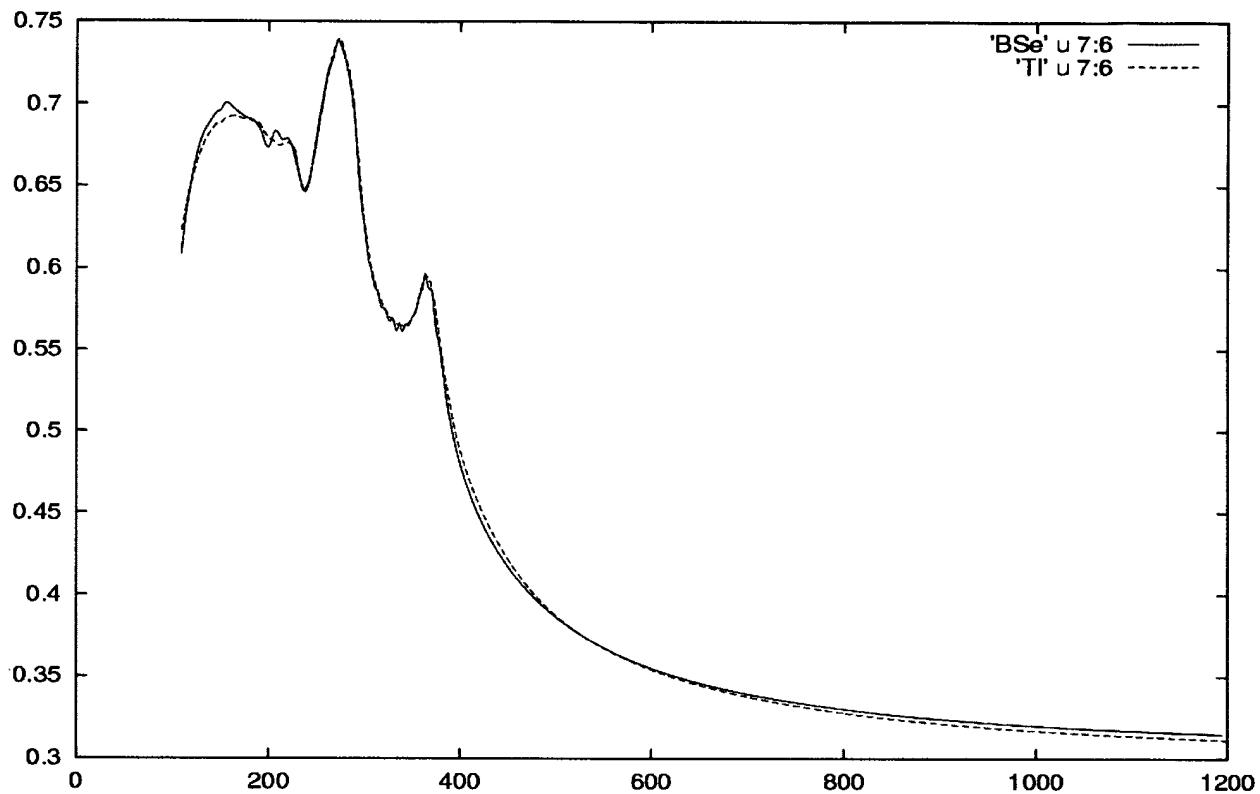


Figure 4: Calculated and measured reflection of Silicon over the entire range of interest. Agreement is very accurate as represented by the scattered wave.

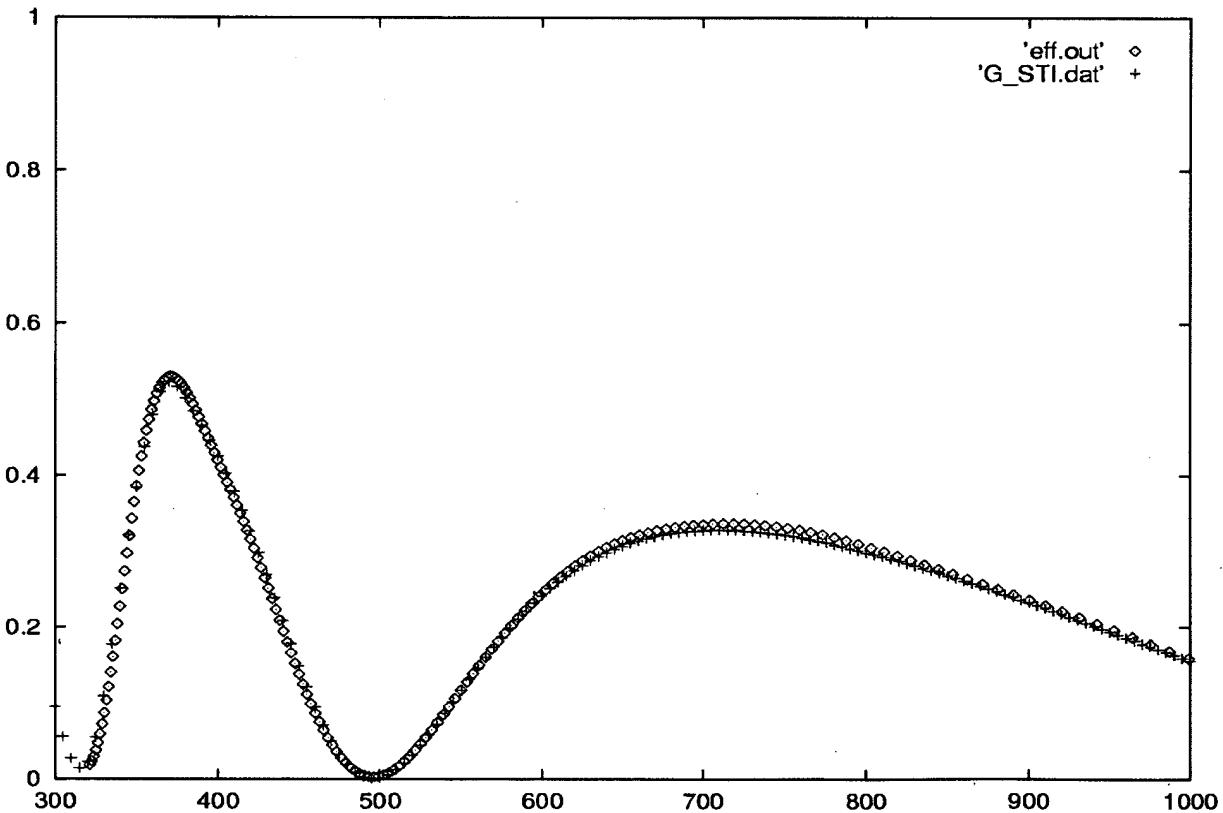


Figure 5: A comparison of the measured and computed reflected signal from a STI stack of Silicon substrate with SiO<sub>2</sub>, SiON and PolySilicon layers that form part of a transistor of 130nm size.

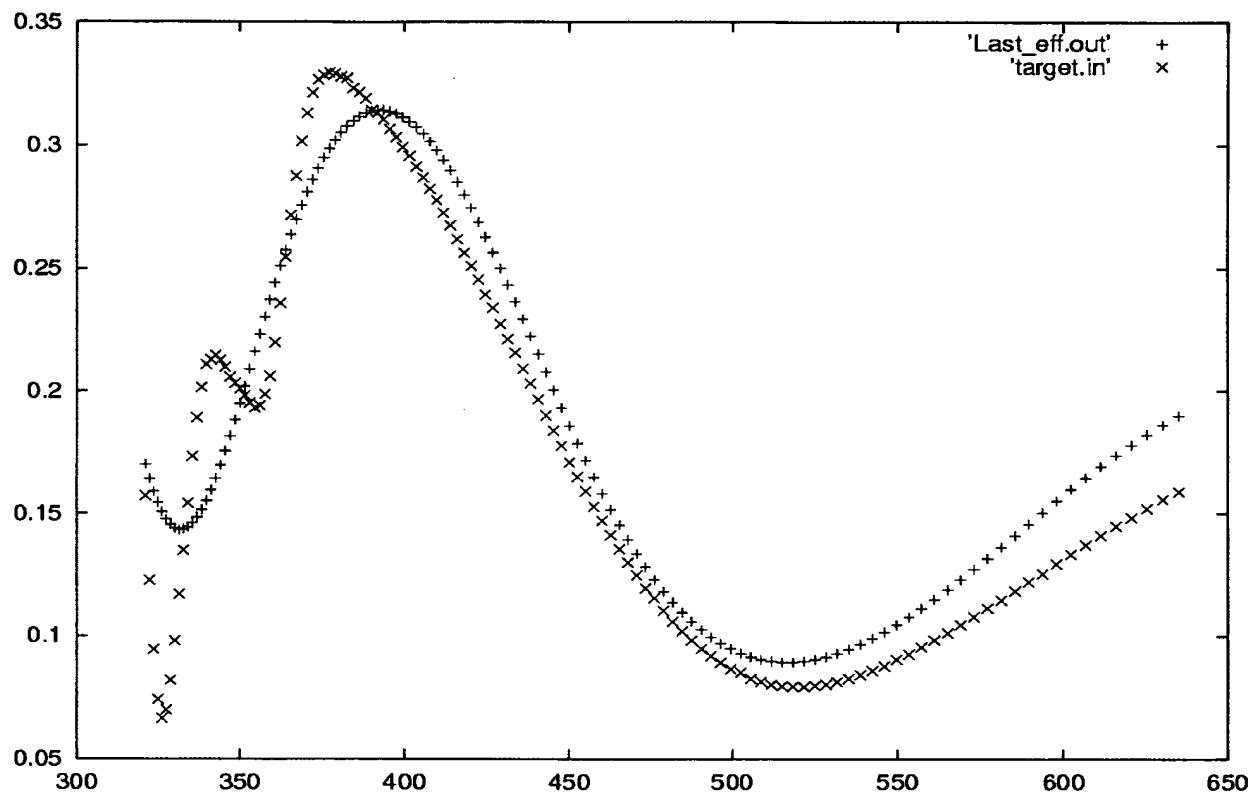


Figure 6: Comparison of measured and final calculated reflection spectra of a 300nm pitch periodic feature. The resulting reconstructed feature is identical to the SEM target.

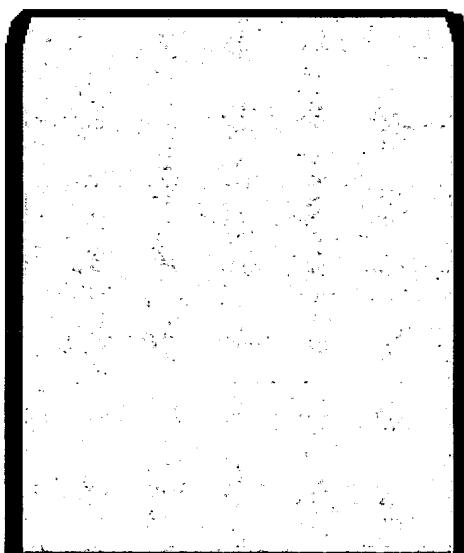


Figure 7: A reconstructed resist feature of 300nm pitch L/S

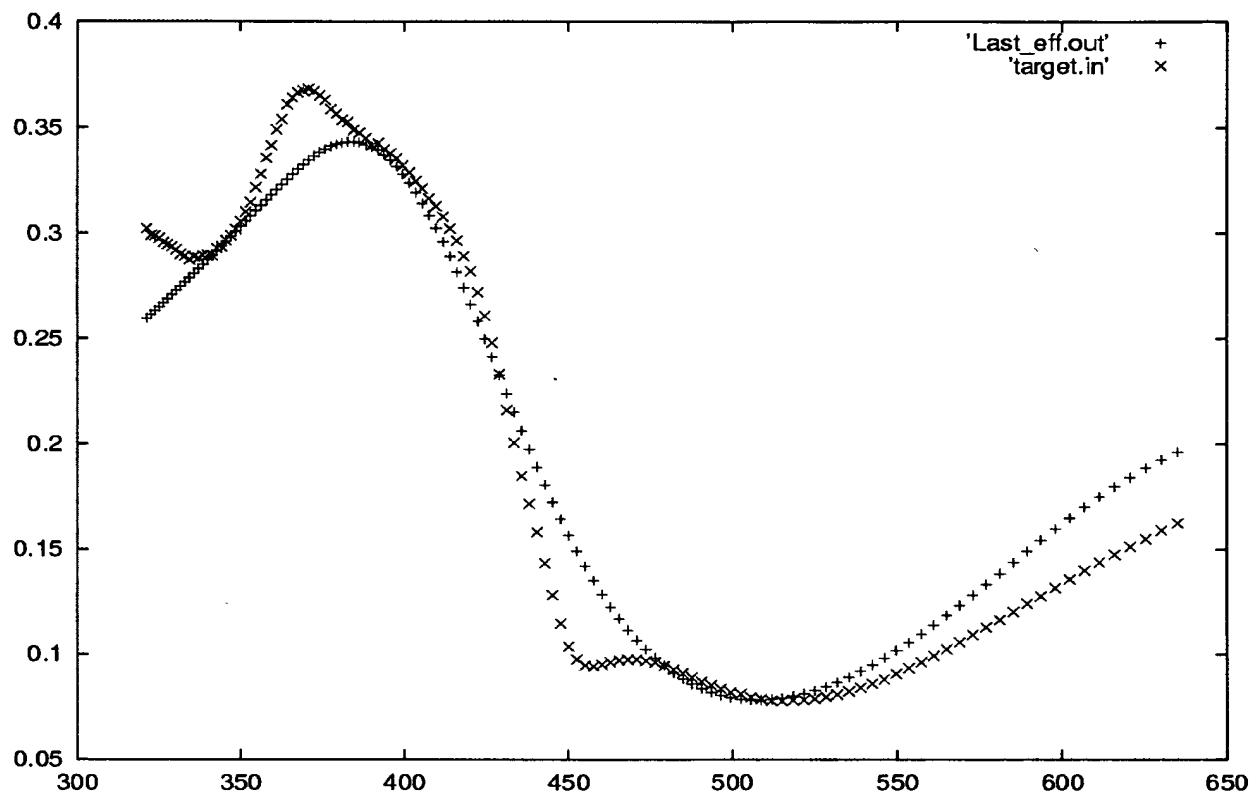


Figure 8: Comparison of measured and final calculated reflection spectra of a 400nm pitch periodic feature. The resulting reconstructed feature is identical to the SEM target.

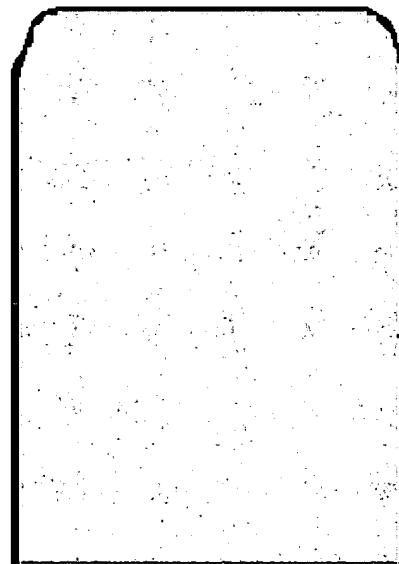


Figure 9: Reconstructed resist feature of 400nm pitch L/S.